

REMARKS

Claims 37 to 70 are pending in the instant application. Claims 52 and 60 to 69 are amended herein. No claims are added or cancelled.

Claim 52 is amended to clarify that even though the corners of the pellet may be rounded, the cross-sectional shape of the pellet is still substantially that of a parallelogram, as shown, for example, in Figures 2 through 7.

Claims 60 to 69 are amended both to address objections raised in the Office Action and to more clearly define the claimed invention. Applicants respectfully submit that the amendments resolve the issue raised with regard to 35 U.S.C. § 112, second paragraph. Accordingly, withdrawal of that rejection is respectfully requested.

Claims 37 to 70 stand rejected under 35 U.S.C. § 103 as obvious over Carmello et al., U.S. Patent No. 5,841,009 ("Carmello") in view of Shiozaki et al., U.S. Patent No. 4,366,093. Applicants respectfully traverse this rejection.

As discussed in paragraphs 0008 to 0016 of the instant application, the prior art describes catalyst pellets made in the shape of hollow cylinders. The drawbacks of prior art pellets are described in paragraph 0014. Moreover the specification teaches that changes that give rise to some improvement in catalytic performance can also cause unwanted detrimental effects, especially if the changes are not balanced carefully by the simultaneous modification of other characteristics. *See* paragraph 0019.

Applicants invention provides improved catalyst pellets, and methods of using same, that account for these various factors and considerations. The shape of the claimed pellets is thus a highly important aspect of the invention. Unlike the hollow cylinders described in the prior art, the claimed pellets are in the shape of *parallelograms*. Applicants respectfully submit that this element of the claims is not taught in the cited references.

Carmello describes methods for oxychlorination of ethylene in a two stage fixed-bed reactor. The methods may utilize supported catalysts, wherein the material used to support the catalyst "may be in the form of spheres, cubes, cones, hollow cylinders, cylindrical pellets, multilobate pellets and the like." *See* col. 2, lines 54 to 56. Thus, Carmello does not teach or suggest catalyst pellets as recited in the instant claims. Moreover, Carmello does not teach that the shape of the catalyst is important, as it equates the various forms.


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The Office Action attempts to overcome this deficiency by combining the teaching of Carmello with Shiozaki. However, Shiozaki also does not teach catalyst pellets in the shape of a parallelogram. Indeed, Shiozaki specifically recites that the catalyst is *cylindrical*, and emphasizes the importance of the circular shape. *See* col. 1, lines 40 to 64. Thus, Shiozaki fails to make up for the deficiencies in Carmello.

Accordingly, Applicants respectfully submit that the Office Action has failed to establish the *prima facie* obviousness of the claimed invention. Reconsideration and withdrawal of the rejection under Section 103 is therefore requested respectfully.

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